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In the Supreme Court of the United States

OCTOBER TERM, 1970

No. 243

ERNEST SAMUEL NOSSEN AND E. S. NOSSEN LABORATORIES, INC., PETITIONERS

v.

UNITED STATES OF AMERICA

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

BRIEF FOR THE UNITED STATES IN OPPOSITION

OPINIONS BELOW

The opinion of the Court of Claims (Pet. App. A, 1-28) is reported at 189 Ct. Cl. 1 and at 416 F. 2d 1362. The order of the Court of Claims denying petitioners' motion for rehearing (Pet. App. B, 1-6) is reported at 422 F. 2d 1340. The order of the Court of Claims on petitioners' motion for relief from judgment (Pet. App. I, 22a-23a) is not yet reported.

JURISDICTION

The judgment of the Court of Claims was entered on October 17, 1969, and a timely motion for rehearing was denied on March 20, 1970. The petition for a writ of certiorari was filed on June 10, 1970. The jurisdiction of this Court is invoked under 28 U.S.C. 1255(1).

QUESTION PRESENTED

Whether the Court of Claims' conclusion that petitioners' patent was anticipated by a prior German patent and also by two other German publications, and therefore is invalid under 35 U.S.C. 101, 102 and 103, has a reasonable basis in the evidence, so that the government is not liable for compensation under 28 U.S.C. 1498 for an alleged unauthorized use of the patented process.

STATEMENT

This is a suit under 28 U.S.C. 1498 for the recovery of compensation from the government for its alleged unauthorized use of petitioners' patented chemical process. Petitioners alleged that the government had infringed claims 1, 2, 4, 6, 7, 8, 9 and 12 of U.S. Patent No. 2,737,445, a "Process for the Thermal Decomposition of Metal Nitrates," issued on March 6, 1956, to petitioner Ernest Samuel Nossen (Pet. App. K). Petitioner E. S. Nossen Laboratories, Inc. is the exclusive licensee under the Nossen patent. The alleged infringements consist of processes employed in two of the Atomic Energy Commission's

plants to recover nitric acid from uranyl (uranium) nitrate.

The case was submitted by the Court of Claims to a trial commissioner, who found that each of petitioners' eight claims under the Nossen patent was invalid, since the invention was the subject of a 1932 German patent (the Gewecke Patent) and of two articles in the German technical press by Dr. Gewecke.[1] These findings were adopted by the Court of Claims (Pet. App. A, 1-28).

Petitioners' patent describes a process for the thermal decomposition of a number of specified metal nitrates, including those of uranium and aluminum. The alleged invention resides in the discovery that substantial quantities of nitric acid vapors are directly and instantaneously formed by subjecting the defined metal nitrates to a temperature higher than their decomposition temperatures in the presence of steam. Nitric acid in its liquid form is recovered from the nitric acid vapors. Practice of the invention is claimed by petitioners to decrease the overall cost of the decomposition reaction by eliminating the need for equipment to convert nitric oxide, which is produced by prior art decomposition processes, to nitric acid (Pet. App. A, 2; see Pet. App. K, column 2).

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[1] The Gewecke patent was issued on August 15, 1932 (see Pet. App. C). The two articles by Dr. Fritz Gewecke are *Die Chemische Fabrik*, No. 21-22, pp. 199-209 (1934) (Def. Exh. 7, with translation) and *Chemiker-Zeitung*, No. 15, pp. 157-158 (1936) (Def. Exh. 17, with translation).

In holding against petitioners, the Court of Claims concluded (Pet. App. A, p. 15):

> Claims 1 and 6 are anticipated by all three Gewecke references, each of which clearly teaches the heating of an aqueous metal nitrate to above its decomposition temperature in the presence of steam. Claim 7, which cites a thin film of metal nitrate, is anticipated by the Gewecke patent and possibly also by the *Chemiker-Zeitung* article. Claims 2, 4, 8, and 12 are anticipated by the *Die Chemische Fabrik* article which discloses the presence of steam and an added gas as recited in these claims. The remaining claim 9 recites both the thin film and added gas features. * * * *

The court therefore concluded that "[u]nder the standards set forth by the Supreme Court in *Graham* v. *John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459, 467 (1966), this claimed subject matter is obvious in view of the above-mentioned prior art disclosures of Gewecke, and therefore is invalid under 35 U.S.C. § 103 (1964)" (Pet. App. A, 15). The court also

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[2] In its findings of fact, the court found that "[t]he 1936 article by Gewecke in *Chemiker-Zeitung* * * * teaches all the manipulative steps recited in claims 1, 6, and 7 and teaches that the same result is obtained" (Pet. App. A, 23). The court also found that claim 9 of the Nossen patent "is not anticipated by any one of the Gewecke references for the reason that no single Gewecke reference recites both of these process conditions. The Gewecke 1931 article * * * teaches the supply of an added gas during the decomposition reaction, while the Gewecke patent discloses forming a thin film of a metal nitrate prior to decomposition. A combination of these two disclosures teaches all the acts recited in claim 9 of the [Nossen] patent" (Pet. App. A, 24).

stated that the record contains evidence that the Nossen patent was anticipated by a number of other patents and disclosures other than Gewecke, but that it was unnecessary to consider them since the Gewecke disclosures were decisive (Pet. App. A, 16). Petitioners do not challenge the Court of Claims' holding that six of their eight claims under the Nossen patent are invalid (Pet. 9). Their sole claim in this Court is that the court below erred in holding claims 7 and 9 invalid (*ibid.*).[3]

Following the Court of Claims' decision, petitioners filed in that court a motion for rehearing, challenging the court's finding that the Gewecke patent's agitated bed of aluminum oxide particles was "maintained at a temperature at or above the temperature of thermal decomposition of aluminum nitrate," *i.e.*, at or above 180° C. (Pet. App. B, 3; Pet. App. A, 4, 6). Attached to petitioners' motion was a poll of seventeen scientists with whom petitioner Nossen was acquainted. After the court's decision, petitioners had submitted the following documents to these scientists for their comments: the text of the Gewecke patent (but not including the two Gewecke articles explaining the Gewecke discoveries); petitioners' own new explanation of the Gewecke patent (not previously presented to the court); and the court's explanation of the Gewecke patent, based upon the evidence presented at trial (Pet. App. H). The

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[3] Claims 7 and 9 require that the metal nitrate solution be subjected to the thermal decomposition temperature in the form of a thin film (Pet. App. A, 19-20).

seventeen scientists agreed that the new Nossen explanation was better than the court's explanation of the Gewecke patent (Pet. App. B, 3-4).[4]

After considering petitioners' motion and the attached letters from petitioners' pollees, the Court of Claims denied the motion for rehearing on the ground, *inter alia*, that petitioners should not be permitted in a post-trial motion to present new evidence in support of a new theory which was contrary to their position at trial (Pet. App. B, 5). In this regard, the court stated:

> [P]laintiffs' principal theory at all times up to the date of our decision was that Gewecke was unintelligible, absurd, or hopelessly ambiguous. Such explanations as were offered appeared to us to be meant more to ridicule Gewecke than to elucidate him. This furnishes a natural explanation why plaintiffs kept to themselves the clear and coherent explanation of Gewecke which they now tender to the court.[5]

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[4] Several of the scientists pointed out that the "moving conveyor" notion in Nossen's question No. (3) is a fictional concept nowhere depicted in the Gewecke patent (Pl. Attachments 6 and 8). One pollee admitted that he was not an expert in the art of thermal decomposition of aluminum nitrate (Pl. Exh. 8), and another stated that he had only a B.S. degree in physics with no competence in chemistry (Pl. Attachment 1).

[5] The court also stated that "[p]laintiffs' efforts to explain why it reserved such important information until this motion now before us are unpersuasive, particularly in view of the fact that the court's remand specifically informed the parties that we desired more information about Gewecke's process or processes" (Pet. App. B, 6).

The court also rejected the contention that petitioners had been prevented from offering the evidence relating to the Gewecke patent (Pet. App. I):

> [T]he court finds, on the materials submitted on the motion, that, after the remand order of January 24, 1968, then Trial Commissioner Lane did not refuse to hear further evidence (including tests) relating to the Gewecke patent and did not rule that he would only hear evidence in respect to the two Gewecke articles.[6]

The court also pointed out that, if, in fact, the trial commissioner had excluded evidence as to the Gewecke patent, petitioners never sought review of that ruling by the court, although the Gewecke patent was a crucial issue in the case (*ibid.*).

ARGUMENT

1. The crux of petitioners' argument in this Court is that the Gewecke patent does not disclose the tem-

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[6] The remand order referred to had directed the taking of evidence regarding the "Gewecke publications." Petitioners contended that this confined the evidence to the Gewecke articles, and excluded the patent. The court stated (*ibid.*):

> Also, as shown by the materials submitted by both parties on the instant motion, prior to the remand order of January 24, 1968, plaintiffs' counsel (Mr. Toren) had used, in his presentation to the court, the term "Gewecke publications" to include the Gewecke patent and the two Gewecke articles, and he also used the term "Gewecke publications" in the same sense in his presentation to the trial commissioner after the remand order; it is clear, therefore, that plaintiffs' counsel clearly understood the term "Gewecke publications" in the remand order to include the patent as well as the two articles.

perature of the bed of aluminum oxide particles at the time the particles are sprayed with aluminum nitrate solution (Pet. 2, 7-8; 16-17).[7] The findings of the court below on this point are set forth below:

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[7] Petitioners agree with the finding of the court below that the Nossen and Geweeke processes both obtain substantially equivalent quantities of nitric acid, the object of both processes (Pet.-App. A. 7, 11; Pet. 7-8). Moreover, it is settled that the scientific explanation for an invention is unimportant in considering its patentability (*De Forest Radio Co.* v. *General Electric Co.*, 283 U.S. 664), and a reference need not disclose the scientific effects which are inherent in the process (*Templeton Patents, Ltd.* v. *Simplot Company*, 336 F. 2d 261 (C.A. 9)).

> * * * Defendant's expert says, and our commissioner agreed, that the process was in every essential the "thin film" technique. (Dr. Nossen himself testified that the "thin film" technique includes spraying the metal nitrate on a "fluidized" or "moving" bed of the metal oxide.) The agitation of the bed of aluminum oxide particles under a spray of aluminum nitrate solution serves, apparently, to coat the particles with the solution, the water and nitric acid flashing off, and aluminum oxide remaining behind as a solid, continuously laminating the particles of the original bed. The patent claims the process is "continuous", not batch type.
>
> This analysis implies that the bed is continuously maintained at a temperature at or above the temperature of thermal decomposition of aluminum nitrate, say 180° C., but the patent nowhere expressly says this, an omission through which plaintiffs seek to drive a team of horses, as will appear. Plaintiffs argue in their exceptions that the hot solution is sprayed on the agitated bed while it is cold, heat from steam or otherwise being applied only after the mixture is set. Thus the agitating and spraying of themselves do not accomplish any thermal decomposition, but create an apparently unmanageable solid or doughy mass, resembling some peculiarly unattractive breakfast food. There is no explanation

Gewecke thermal decomposition process would not work unless the agitated bed of particles, at the time of spraying, were heated to a temperature at or above the decomposition temperature of aluminum nitrate. There is thus no merit in petitioners' contention that the Gewecke process failed to disclose the proper temperature, and no occasion for further review of this factual question.[10]

2. Petitioners' other arguments are lacking in merit. Petitioners are not aided from the fact that the German Patent Office issued patents to both Gewecke (in 1932) and Nossen (in 1959) (Pl. Exh. 6). As petitioners concede, the Gewecke German patent and the Gewecke publications were not cited by the German Patent Office against the Nossen application (Pl. Exh. 7). Similarly, the Gewecke patent and the two Gewecke articles were not cited by the United States Patent Office against the Nossen application for an American patent (Pet. App. K, column 6). The Derr patent, which was cited by the United

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that the Gewecke patent discloses the continuous calcining techniques used at Hanford (Tr. 623). At Hanford, it is conceded that a solution of uranyl nitrate is sprayed onto an agitated bed of uranium oxide, the temperature of which is maintained at a level higher than the thermal decomposition point of the uranyl nitrate solution (Pl. Exh. 3 (Q. & A. 53(d)). See generally Tr. 623-634 (Dr. Lawroski); Tr. 742-751, 876-884 (Mr. York).

[10] There is no conflict with this Court's decision in *Seymour v. Osborne*, 11 Wall. 516, 555, since, as the court below expressly held, the Gewecke patent discloses "within the four corners of the instrument" all of the elements of the Nossen patent "in full, clear, and exact terms, as a foreign patent must do" (Pet. App. A, 8).

States Patent Office, was not put in evidence in the instant case, nor was any testimony taken with respect to the contents of that patent. There is thus no basis in the record for petitioners' conclusion that the teachings of Gewecke were cited by the Patent Office (Pet. 18-19).[11] Moreover, it is well settled that a patent may be invalidated over prior art references that were considered by the Patent Office in examining the patent application. See *Pedersen* v. *United States*, 109 Ct. Cl. 226, 266, 271; *Bocjl Corp. et al.* v. *United States*, 120 Ct. Cl. 347, 379, 389; *Hipkins, et al.* v. *United States*, 124 Ct. Cl. 708, 744, 746; and *Charlotte Chemical Laboratories, Inc., et al.* v. *United States*, 154 Ct. Cl. 283.

Petitioners further allege that the trial commissioner interpreted the court's remand order as excluding evidence with respect to the Gewecke patent (Pet. 20-21). In the first place, if such an allegation were true, it in no way precluded the Court of Claims from resting its decision on the Gewecke patent, particularly since the trial commissioner had thoroughly considered the Gewecke patent in his original decision. Second, the record discloses no evidence of any such interpretation of the court's remand order by the trial commissioner or that petitioners were precluded in any way from taking testimony or conducting scientific experiments with respect to the Gewecke patent. Actually, it was petitioners who

[11] The Derr patent does not mention the Gewecke patent or Gewecke's two articles (U.S. Patent No. 2127504, issued Aug. 23, 1938).